

Notice of Allowability

Application No.

09/852,222

Examiner

Daniel S. Felten

Applicant(s)

ALCALY ET AL.

Art Unit

3694

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 9/19/2007.
2. ☒ The allowed claim(s) is/are 1-13, 16-19, 22, 23, 25, 26, 31 and 32.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____. |
| 3. <input checked="" type="checkbox"/> Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date <u>See Continuation Sheet</u> | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____. |

Continuation of Attachment(s) 3. Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date: 6/19/2006 & 8/31/2001.

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with David Leason on November 27, 2007.

The application has been amended as follows:

1. (Currently Amended) A method for generating an index of fundamental investment returns in asset classes that comprise the index, including commercial asset classes, comprising the steps of:

(a) selecting a representative set of assets, where each said asset is grouped into a respective one of a plurality of asset classes;

(b) for any time t including the present time, time t being at the close of a holding period h , generating a rule based on market prices at a plurality of times preceding time t to determine a position for each of said assets for a succeeding holding period $h+1$;

(c) **computing** the position for each of said assets for said succeeding holding period $h+1$ in accordance with said rule, wherein the position indicates whether each particular asset is long or short;

(d) obtaining market prices for each of said assets at the beginning and end of said succeeding holding period $h+1$;

(e) *computing* with the computer a return for each of said assets for said succeeding holding period $h+1$, said return being a function of the position for said succeeding holding period $h+1$ and the market prices at the beginning and end of said succeeding holding period $h+1$ determined in steps (c) and (d);

(f) averaging the returns computed in step (e) for all the selected assets in each of said plurality of asset classes, the average for each of said asset classes is the return for that asset class; and

(g) *computing and outputting* with the computer the index by combining the returns for each asset class.

2. (Previously Presented) The method of claim 1, where the step (g) of computing the index further comprises the steps of selecting weights such that each weight corresponds to one of said plurality of asset classes, and averaging the products of the return for each asset class multiplied by its corresponding weight.

3. (Currently Amended) A method for generating a series of investment returns with respect to time, the method comprising the steps of:

(a) selecting a plurality of assets from a plurality of asset classes;

(b) *computing* a position for each of said assets for a time t based on historical market price data, wherein the position indicates whether each particular asset is long or short;

- (c) *selecting a holding period* beginning at time t for each of said assets;
 - (d) obtaining a market price for each of said assets at time t and at the end of said holding period;
 - (e) *computing* with a computer an asset return for each of said assets for said holding period, said asset return being a function of the position and the market price of each of said assets at time t and at the end of said holding period;
 - (f) averaging said asset returns computed in step (e) for said holding period, for all of said assets in each of said asset classes;
 - (g) computing a class return for each of said asset classes based on said averaging; and
 - (h) *computing and outputting* with the computer an index of returns for said holding period, by combining the class returns for each of said asset classes for said holding period.
4. (Previously Presented) The method of claim 3, wherein the step of computing the index of investment returns further comprises the steps of selecting weights such that each weight corresponds to one of said asset classes, and averaging the products of the class return for each asset class multiplied by the corresponding weight.
5. (Currently Amended) The method of claim 3, further comprising selecting *an* asset from each of two commercial markets.
6. (Currently Amended) The method of claim 3, wherein said plurality of asset classes comprises *are selected* from the group of: commodities, currencies, and bonds.

7. (Currently Amended) The method of claim 3, further comprising *computing* said position based on whether the market price for each of said assets increased or decreased since a predefined time preceding said time t.

8. (Currently Amended) The method of claim 3, further comprising *computing* said position based on a moving average of the asset returns for each of said assets for a predetermined past time period.

9. (Currently Amended) The method of claim 3, further comprising the steps of:

(a) *computing* a continuous series of returns for each of said assets, wherein a return is determined using a futures contract for each of said assets for each of a plurality of holding periods;

(b) *computing* an average value of the continuous series over a predetermined number of past holding periods; and

(c) *computing* said position as a function of the current value of the continuous series and said average value of the continuous series.

10. (Previously Presented) The method of claim 9, further comprising the steps of setting the position to long when the current value of said continuous series of futures returns is greater than the average value of the continuous series, and otherwise setting the position to short.

11. (Previously Presented) The method of claim 3, further comprising the steps of determining one or more futures contracts for each of said assets and determining the market prices for each of said assets for said times t in accordance with the futures contract for said times t .

12. (Original) The method of claim 3, wherein said step of computing the asset return for each of said assets further comprises the step of setting the asset return equal to the product of the market price at said time t divided by the market price at a preceding time $t-1$ multiplied by the position for said time t .

13. (Currently Amended) The method of claim 3, further comprising the steps of *computing* the investment return for the holding period beginning at time t as the average of the class returns for said holding period, and computing an index for said holding period as the product of the index for the preceding said holding period multiplied by the sum of one plus the investment return for the holding period beginning at time t .

14 and 15 (Canceled)

16. (Currently Amended) A method for generating a series of investment returns for a plurality of asset classes that comprise an index, each class having at least one asset member, the method comprising the steps of:

(a) *selecting* a plurality of holding periods;

(b) *selecting* a futures contract for each asset member, each futures contract having a market price at the beginning and end of each of said holding periods;

(c) calculating a continuous series of futures returns for each asset member based on the futures contract and the market price for said asset member at the beginning and end of each of said holding periods;

(d) *computing* a position for each said asset member for each of said holding periods based on said continuous series of futures returns for the preceding holding periods, wherein the position indicates whether each particular asset is long or short;

(e) calculating an asset return for each said asset member based on the position and the market price at the beginning and end of said holding period;

(f) calculating a class return for each asset class based on the market returns for each asset member in said class; and

(g) *calculating and outputting* an investment return for said holding period, by combining the class returns among the asset classes of the index.

17. (Original) The method of claim 16, wherein said plurality of asset classes comprises at least one from the group of: commodities, currencies, and bonds.

18. (Currently Amended) A method for generating a series of investment returns for a plurality of asset classes that comprise an index, each class having at least one asset member, the method comprising the steps of:

(a) *selecting* a holding period for each said asset member;

(b) ***selecting*** a futures contract for each asset member, each said futures contract having a market price for the beginning and end of each said holding period;

(c) ***computing*** a position for each said asset member based on the futures contract, the market prices and the holding period, wherein the position indicates whether each particular asset is long or short;

(d) ***computing*** an asset return for each said asset member as a function of the position for each said holding period and the prices at the beginning and end of each said holding period;

(e) ***computing*** a class return for each asset class as an average of the asset return for each said asset class member;

(f) ***computing*** a weight corresponding to each said asset class;

(g) ***computing*** a weighted return for each said asset class as a product of the class return for each said asset class and the corresponding weight; and

(h) ***computing and outputting*** an investment return for said holding period as a sum of the weighted return for each said asset class among the asset classes of the index.

19. (Original) The method of claim 18, wherein said plurality of asset classes comprises at least one from the group of commodities, currencies, and bonds.

20 and 21 (Canceled)

22. (Currently Amended) *An apparatus* for generating an index of investment returns, comprising a processor; and a memory storing processing instructions for controlling the processor, the processor *being configured* with the processing instructions *to*:

- (a) *select* a plurality of assets from a plurality of asset classes;
- (b) *compute* a position for each of said assets for a time t based on historical market price data, wherein the position indicates whether each particular asset is long or short;
- (c) *select* a holding period beginning at time t for each of said assets;
- (d) obtain a market price for each of said assets at time t and at the end of said holding period;
- (e) compute with a computer an asset return for each of said assets for said holding period, said asset return being a function of the position and the market price at time t and at the end of said holding period;
- (f) average said asset returns computed in step (e) for said holding period, for all of said assets in each of said asset classes;
- (g) *compute* a class return for each of said asset classes based on said averaging; and
- (h) *compute and output* with the computer an index of investment returns for said holding period by combining the class returns for each of said asset classes for said holding period.

23. (Currently Amended) The *apparatus* of claim 22, wherein computing the index of investment returns further comprises selecting weights such that each weight corresponds to one

of said asset classes, and averaging the products of the class return for each asset class multiplied by the corresponding weight.

24. (Canceled)

25. (Currently Amended) An *apparatus* for generating an index of investment returns for a plurality of asset classes that comprise the index, each class having at least one asset member, comprising a processor; and a memory storing processing instructions for controlling the processor, the processor *being configured* with the processing instructions *to*: (a) *select* a plurality of holding periods; (b) *select* a futures contract for each asset member, each futures contract having a market price at the beginning and end of each of said holding periods; (c) calculate a continuous series of returns for each asset member based on the futures contract and the market price for said asset member at the beginning and end of each of said holding periods; (d) *compute* a position for each said asset member for each of said holding periods based on said continuous series of futures returns for the preceding holding periods, wherein the position indicates whether each particular asset is long or short; (e) *calculate* an asset return for each said asset member based on the position and market price of each of said assets at the beginning and end of said holding period; (f) *calculate* a class return for each asset class based on the market returns for each asset member in said class; and (g) *calculate and output* an investment return for said holding period by combining the class returns for each of said assets among the asset classes of the index for said holding period.

26. (Currently Amended) *An apparatus* for generating an index of investment returns for a plurality of asset classes that comprise the index, each class having at least one asset member, comprising a processor; and a memory storing processing instructions for controlling the processor, the processor *being configured* with the processing instructions *to*: (a) *select* a holding period for each said asset member; (b) *select* a futures contract for each asset member, each said futures contract having a market price at the beginning and end of each said holding period; (c) *compute* a position for each said asset class member based on the futures contract, the market prices and the holding period, wherein the position indicates whether each particular asset is long or short; (d) *compute* an asset return for each said asset member as a function of the position for each said holding period and the prices at the beginning and end of said holding period; (e) *compute* a class return for each asset class for each said holding period as an average of the asset return for each said asset member for each said holding period; (f) *compute* a weight corresponding to each said asset class; (g) *compute* a weighted return for each said asset class as a product of the class return for each said asset class and the corresponding weight; and (h) *compute and output* an investment return for said holding period as a sum of the weighted return for each said asset class among the asset classes of the index.

27 -30 (Canceled)

31. (Currently Amended) A computer-readable *storage* medium encoded with processing instructions *executable by a computer* for implementing a method for generating an index of investment returns for a plurality of asset classes that comprise the index, each class having at

least one asset_member, *the processing instructions, when executed in the computer*, comprising: (a) *selecting* a plurality of holding periods; (b) *selecting* a futures contract for each asset member, each futures contract having a market price at the beginning and end of each of said holding periods; (c) calculating a continuous series of futures returns for each asset member based on the futures contract and the market price for said asset member for each of said holding periods; (d) *computing* a position for each said asset member for each of said holding periods based on said continuous series of futures returns for the preceding holding periods, wherein the position indicates whether each particular asset is long or short; (e) *calculating* an asset return for each said asset member for each said holding period based on the position and the market prices at the beginning and end of said holding period; (f) *calculating* a class return for each asset class for each said holding period based on the market returns for each asset member in said class; and (g) *calculating and outputting* an investment return for said holding period by combining the class returns among the asset classes of the index.

32. (Currently Amended) A computer-readable *storage* medium encoded with processing instructions *executable by a computer* for implementing a method for generating an index of investment returns for a plurality of asset classes that comprise the index, each class having at least one asset member, the processing instructions, when executed in the computer, comprising: (a) selecting a holding period for each said asset member; (b) selecting a futures contract for each asset member, each said futures contract having a market price at the beginning and end of each said holding period; (c) computing a position for each said asset member based on the futures contract, the market price and the holding period, wherein the position indicates whether each

particular asset is long or short; (d) computing an asset return for each said asset member for each said holding period as a function of the position for said holding period and the market prices at the beginning and end of said holding period; (e) *computing* a class return for each asset class for each said holding period as an average of the asset return for each said asset member for each said holding periods; (f) *computing* a weight corresponding to each said asset class; (g) *computing* a weighted return for each said asset class for each said holding period as a product of the class return for each said asset class and the corresponding weight; and (h) *computing* and *outputting* an investment return for each said holding period as a sum of the weighted return for each said asset class among the asset classes of the index.

33. (Canceled)

2. The following is an examiner's statement of reasons for allowance:

The invention defined by the pending claims concerns methods and systems for generating indexes in which assets are grouped into asset classes that comprise the index. Each asset class has selected assets as members of the class. Investment returns are computed first with regard to the individual asset members, and then with regard to the class that includes that particular asset. An return index is computed with regard to an average return for each respective asset class, by combining or summing such returns for each of the asset classes that define the index.

The closest prior art in the application was Melnikoff (US5,784,696) and Sperando (US 6,922, 6777). Melnikoff discloses a method and apparatus for selecting a portfolio from a library of assets based upon an investment risk and risk-adjusted rate of return. The asset selection and computation is repeated until the risk-adjusted return of the portfolio satisfies criteria derived from preference data specific to an investor. Melnikoff also measures risk-adjusted and return performance over asset classes and funds.

Sperando teaches combining a swap instrument and a structured note. The swap provides a return to the investor equal to the benchmark selected. This benchmark exposure is combined with a structured note which adds an incremental exposure to the benchmark index as well as a passive commodity index (or the present assignee's Mount Lucas Management Commodity index (MLM)) and like Melnikoff reflect the investor's portfolio needs and objectives.

Neither Melnikoff or Sperando standing alone or in combination disclose or suggest the presently claimed steps of 1(b), 1(c), 1(f) and 1(g) for generating an index of fundamental investment returns. In step 1(b) of claim 1, a rule is generated which determines positions to be taken in various assets based upon previous market prices. The rules are generated based upon technical analysis, such as trend analysis, moving averages and other technical indicators. The rule generates (as in step 1c) a model portfolio of assets that yield a return for each asset over a succeeding holding period (as in step e). Those returns are used to compute and output the index by combining the returns for each asset class (as in 1 (f) and 1(g)). Melnikoff nor Sperandeo in combination or individually compute returns for individual assets and asset classes as defined by steps 1 (f) and 1(g). Instead both references disclose receiving inputs from an investor regarding risk and return *preferences*, and then conducting analysis of a selected set of assets using known indices to determine whether the particular set in question meets the investor's objectives. Thus successively, steps 1(b), 1(c), 1(f) and 1(g) for generating an index of fundamental returns are not disclosed by Melnikoff in view of Sperandeo.

Method 3 and apparatus claim 22 both recite computing asset positions for a succeeding period are based upon past market prices, as in claim 1. These positions then yield returns which are used to determine an index or series of returns. Thus 3 (c), 22 (c), 3 (f), 22 (f), and 3(g), 22(g) are not disclosed or suggested by either Melnikoff or Sperandeo.

In particular, step (c) of claims 3 and 22, does not compute a holding period for *each* asset. Melnikoff discloses a period over which the performance of tentatively selected assets are evaluated. The holding period taught by Melnikoff is the same for all assets. Similarly, Sperandeo uses a holding period for his instrument which is the same for all selected assets, not

selecting a holding period for each asset as taught in step (c) of claims 3 and 22. Also neither Melnikoff nor Sperandeo disclose or suggest calculating a class return for each asset class.

Method claim 16 and apparatus claims 25 and 31 call for asset positions based upon future contracts for the assets. Thus steps (a), (c), (f) and (g) are not disclosed or suggested by Melnikoff or Sperandeo.

Melnikoff nor Sperandeo disclose or suggest individually or in combination selecting a plurality of holding periods as claimed in step (a) for claims 16, 25 and 31.

Melnikoff in view of Sperandeo also fails to suggest and disclose calculating a continuous series of returns for each asset member based upon the futures contract and market price for said asset member at the beginning and end of said hold periods as in step (c) of these claims.

Method claim 18 and apparatus claims 26 and 32 call for computing of asset positions based on futures contracts or the assets. Steps (a) and (e) of these claims are not disclosed or suggested by Melnikoff or Sperandeo. Particularly, neither Melnikoff or Sperandeo disclose or suggest determining a holding period for each said asset member, as suggested in step (a) of claims 18, 26 and 32. Also Melnikoff and Sperandeo fail to disclose or suggest determining an asset return for each asset class, as suggested in step (e) of claims 18, 26 and 32.

Thus the dependent claims are also considered allowable for the reasons cited above.

Conclusion

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US Patents:

Bloom (US 6,061,663) discloses index rebalancing

Kinney, Jr. et al (US 6,564,192) discloses a method for differential index bidding in online auctions.

Witworth (US 6,622, ¹729) disclose method of creating an index of residual values for leased assets.

Herbst et al (US 7,062,459) discloses a digital computer system and methods for managing a synthetic index fund

Ginsberg (US 6,754, 639) discloses fixed income portfolio index processor

Lange (US 6,321,212) disclose a financial products having a demand-based adjustable return and trading exchange therefor

Gastineau et al (US 7,099,838) discloses hedging exchange traded mutual funds or other portfolio basket products.

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Foreign Patents:

Fernholz (WO 97/22075) discloses an apparatus and accompanying method for automatically modifying a financial portfolio through dynamic re-weighting.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

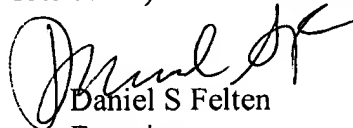
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel S. Felten whose telephone number is (571) 272-6742. The examiner can normally be reached on Flex.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Trammell can be reached on (571) 272-6712. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



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Daniel S Felten
Examiner
Art Unit 3694


12/17/08
ELLA COLBERT
PRIMARY EXAMINER